585
[415] they are by bringing along "Mates" and "Calabazas," i.e. bowls and pitchers made of the rind of pumpkin-like fruit, into which they put the greatest part of the food and drink offered in order to carry them home. Only when everybody has eaten until he is ready to burst and the majority are rather drunk, the wedding draws to a close. The young couple is finally left alone and may go to their hut. But before the couple are allowed to enjoy their love to the full, they must pass through a long cruel (because it is continent) trial period. They live and sleep together under their
[286] common mosquito-net made of cotton with red flowers, but not as husband and wife, but as brother and sister, and they are not allowed to touch each other for an entire year. They must remain pious, chaste and abstemious, no matter how difficult it may be for them. The purpose is to steel the virtue of abstemiousness and the strength of will. Only when this period of fasting and trial is over, may they succumb to the ecstasies of love. Woe to those
684 who cannot withstand and secretely attempt to taste of the forbidden fruit before the end of the trial year—if discovered they pay for their crime with their lives or have to seek refuge immediately in another territory which cannot be reached by the punishing arm of their strict rulers. Only once I had occasion to watch how a fiancé, who was violently in love, gingerly and furtively with trembling hands touched the arm and naked breast of his betrothed.

302 During this year of betrothal they use red and black plant juices
584 to paint their faces, chests, arms and legs with streaks and dots. This custom corresponds to our engagement announcements and wedding rings.

846 Immediately after the birth of a baby, the young mother gets
[515] up from her bed, goes to the river and bathes. Bathing in the river is one of the Cayapas' passions. Each and everyone of them take at least two or even three baths per day. The young mother has barely left her child when the grandmother cleans it up a bit, puts it down again; and then the father lies down with it, staying in bed with the child from three to five weeks, letting his wife nurse him, just as though he were the woman in child-bed, who had gone through the pains of childbirth and was in need of recuperating and nursing care. The young mother, on the other hand, does her usual work already an hour after delivery, attending to her daily chores as though nothing had happened. This strange custom is connected with their religious concepts and their fear of evil spirits

291 Children wear no clothes at all until they are 6 or 8.

301 The hair is worn loose, long, and flowing by the women but is clipped
302 above the ears by the men. Both sexes wear necklaces and wristbands of glass and porcelain beads, coins, seeds, and beetle wings. Only women wear earrings.

302 The traditional *Chibcha* custom of frequently painting body and face is found among the *Cayapa*. Red, yellow, and black are used, and the designs are very numerous. Barrett reproduces many of the motifs and insists that there is no special significance attached to any of them, nor is there any age, sex, or property correlation.

TRANSPORTATION

501 **Watercraft.**—A large part of every *Cayapa's* life is spent on the water fishing and traveling. Canoes are built with great skill and care. They
[439] can withstand not only fluvial but also maritime travel and are routinely sold in the "civilized" coast towns. They are dugouts, usually 10 to 12 yards long but sometimes much larger. Balsa-wood logs are sometimes used as outriggers.

MANUFACTURES

000 Details of *Cayapa* manufactures are contained in Barrett's work, which describes and illustrates finished products and minutely discusses the techniques of preparation.

322 **Woodworking.**—Woodworking includes house building, making deadfall traps, and carving seats and children's dolls.

285 **Weaving and basketry.**—The women weave cotton cloth on a narrow
286 native loom, and the men do the sewing. The men also weave the fishing
462 nets and hammocks. Barrett's discussion of *Cayapa* basketry is outstanding. The *Cayapa* make many kinds of baskets, mats, and fans of bark and of various roots.

323 **Pottery.**—Pottery is crude and undecorated. It is used particularly for
177 storage. Tradition claims that in their old Highland habitat the *Cayapa* made better pottery but that calabashes have since largely replaced ceramics.

324 **Stonework and metalwork.**—Stonework is limited to the metates
325 used in grinding corn and plantains. Although in aboriginal times Lowland Ecuador was a famous area of metallurgy, there is no evidence that the contemporary *Cayapa* practiced it.

411 **Weapons.**—The weapon most widely used today is the muzzle-loading
177 shotgun. The blowgun was important in the past, but today its use is restricted to boys, who shoot poison darts while playing at hunting. Hardwood lances are being given up, and the bow and arrow is said not to be mentioned in *Cayapa* tradition. The steel machete is ubiquitous.

3: Barrett E-5 (1908-1909)1925
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In addition to the foregoing food-producing plants, 248 there are various others that are valuable for other materials which they produce. One of these is cotton, called kū'a. The Cayapa are expert weavers and in 286 large measure produce all their own material. Their [439] textiles are made almost entirely of cotton, the only wool used being that obtained from the Quichua of the higher Andes, or in these days from the yarn of commerce. The yarn used by the Cayapa is always red or blue, and is employed for the sake of the colors, not for the material itself. They grow a white and also a brown cotton, the 248 former being, according to their statements, an intro- [386] duced species, the latter an indigenous one. These, together with the green and lavender dyes and the two colors of yarn, give them a total of six native colors. Cotton is usually grown from the seed, and requires little attention when once the plants have attained a fair size. Only a few plants of either the white or the brown cotton are grown by any one family, but they bloom perpetually and are sufficient to produce all the raw material needed. The cotton is allowed to mature completely, that is until the bolls have opened and the ripe cotton is nearly ready to fall. It is then gathered (being in the condition shown in pl. CVII, 11), thoroughly dried, and stored away in packages (such as that shown in fig. 12 of the same plate), and wrapped in leaves of the hoja blanca, until needed for spinning. To a limited extent also the [272] cotton plant is used in making a beverage, the leaves being boiled after the manner of tea.

Tobacco is considerably used by the Cayapa, but never 276

3: Barrett E-5 (1908-1909)1925
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made more effective, in case the single log above mentioned is not sufficiently heavy, by superimposing upon it another which not only adds weight and enables the trap to kill larger animals, but accelerates its action and diminishes the possibility of the game escaping after the trap is sprung but before the log can fall. Such a second log is usually a foot or so shorter than the other.

Fishing

The numerous streams of the Cayapa region are well stocked with various kinds of fish, many of which are used as food by the Indians. They are at present caught by six different methods. There are three types of nets, the "re," or large set-net, the atarraya or conical casting-net, and the small dip-net, used incidentally in connection with the set-net. These are all used to a considerable extent, especially the set-net; but the "corral," or impounding trap, the pole and line, and the "gig," or fish-spear, are much more generally used. Of these six devices, four only, the set-net, the dip-net, the corral, and the gig, appear to be of aboriginal origin.

The re, called in Cayapa wa'kū, is, like the other two nets used by the Cayapa, made of pita fiber string and is used especially in catching a very excellent species of shad (Spanish, sabalo), called by the Cayapa awī'lī. For this purpose it is made with a mesh of about three inches, and varies in length from about twenty to sixty feet according to the width of the particular estero in which it is to be used. Usually near a house there are one or more esteros where shad are fairly abundant,

3: Barrett E-5 (1908-1909)1925
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fish and kills with a club the larger ones which might flop over the gunwale. Finally, all the fish possible having been taken in this manner, the set-net and the seine are taken up and brought back to the house. Both are carefully washed and cleaned at the river after having the stone sinkers removed, and are then hung up on a long bamboo pole, especially provided for this purpose, over the drying platform at the side of the house. When thoroughly dried these nets are each carefully folded and then compactly twisted, in such fashion as is shown in pl. CXX, 2. The stone sinkers are unwrapped and stored away in a basket until again needed. The floats used on the net here shown measure about four by eight inches by three-quarters of an inch. In many other cases the floats are of various other forms. They are quite often cylindrical.

Nets called atcī wa'kū, of the same kind but with smaller meshes, are made for catching certain other species of fish. In general, however, the use of the seine is confined largely to catching shad, as above described.

The atarraya, which name is corrupted by the Cayapa into a*t*a'ia, is a large conical casting net heavily weighted about its mouth with lead or, when this is not available, with stone sinkers. In pl. CXX, 1, is shown one of these nets weighted with lead sinkers weighing in the aggregate about twenty-five pounds. In this illustration it is shown folded at about its middle, while the upper end or apex of the cone is wrapped around the remainder of the net. To the point of the cone is attached a long, heavy cord, the end of which is held in the hand when

3: Barrett E-5 (1908-1909)1925
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fish are allowed to fall into the bottom of the canoe or into a basket, and the net is then ready for a second cast. This net serves only for taking small fish, and is not very much used by the Cayapa. Apparently their knowledge concerning this form of net was acquired from the negroes. At any rate their knowledge of its use is comparatively recent.

The dip-net, called by the Cayapa cī′a, above referred to, is a small-meshed conical net and is used not only for fishing, as above described, but especially is it employed for catching the small lobster, or crayfish, called by the Cayapa pī′cū or a′bīcū, which is so abundant along the banks of the river and especially along the banks of the esteros tributary to the river. The opening of this dip-net is held in shape by a hoop made of a pliable vine simply bent around and its two ends tied firmly together. Thus one end of the hoop is rounding, and the opposite end, the one used as a handle, is fairly sharp-pointed. The dimensions of this opening are perhaps fifteen to twenty inches by thirty to thirty-six inches, and the distance from the rim to the point of the cone of the net itself is from twenty-four to thirty inches.

All nets are made from pita-fiber string, the details of the making of which, as also of net-weaving, are treated in the discussion of cordage and netting.

A corral, or impounding trap, such as that shown in pl. LXVII, is used by almost everyone living along the tidewater portion of this river system; and, owing to the level character of this coastal plain, the tidal rise

3: Barrett E-5 (1908-1909)1925
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One is a jet black obtained by boiling the bark of a certain tree, and is used almost exclusively in the dyeing of old mantas or other pieces of cloth. The other is the red obtained from the achote and is used on rare occasions for coloring the material used in certain baskets and fans.

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386

WEAVING

Weaving is always done upon a crude, though fairly elaborate, loom consisting of twelve essential parts. In pl. CIX is shown a photograph of one of these looms as it appeared in use in a Cayapa house. This shows the parts of the loom to fair advantage, but they are even more clearly shown in pl. CX. These parts are as follow:

286 •

Lateral uprights, *a*, *b*	=	a′ipala
Cross-bars of frame, *c*, *d*	=	tyūnlū′ra
Warp guides, *e*, *f*	=	ya′ipe
Weaving batten, *g*	=	tsē′hwa
Shuttle, *h*	=	pī′picalyī
Warp separators, *i*, *j*	=	yade′mbū
Head bar, *k*	=	yade′mbū
Head stick to which the initial line of weaving is fastened, *l*		
Width gauge, *m*	=	ityu′lya

The lateral uprights (*a*, *b*) are two long and comparatively slender poles. One end of each is forked, and each point of the fork is sharpened to a chisel edge. The points of each of these poles are forced through one of the narrow cracks in the palmwood floor of the house and across one of the joists below. The upper end of the pole is bound securely to one of the beams of the house,

3: Barrett E-5 (1908-1909)1925
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•286 usually near the eaves. The foot of the pole is placed far enough from this beam so that when it is bound to the beam it forms an angle of about fifteen degrees with the perpendicular, thus carrying the upper part of the loom at a slight slant away from the weaver.

A heavy horizontal bar (*d*), usually about three inches in diameter, is next bound to the upright lateral poles at a distance of from three to six inches from the floor, and a similar bar (*c*) is bound farther up the poles, its position depending on the desired length of the cloth to be woven. It is always placed at a distance above the lower bar about six or eight inches greater than half the length of the piece of cloth to be made; thus for weaving an ordinary manta the bars are placed about three and a half feet apart. Both bars are fastened to the poles with heavy pita cords, those holding the upper cross-bar being simply bound around the pole, and those holding the lower bar being tied in through the forks at the bottom of the poles. The upper bar hangs down automatically, but the lower one is brought into place by means of two stout pita cords which pass round both transverse bars. Such cords are employed also to hold the movable bars (*i*, *j*) used as warp separators. Especially is this the case when the loom is being set up and before the warp threads are wound on it. These two cords hold the cross-bars in position by crossing, and are so placed that they are near either edge of the manta as it is being woven. The two uprights (*a*, *b*) and the two heavy transverse bars (*c*, *d*) are what may be termed the fixed elements of the loom, forming a rectangular framework upon which the warp is strung and the weaving done with what may be called the movable elements.

3: Barrett E-5 (1908-1909)1925
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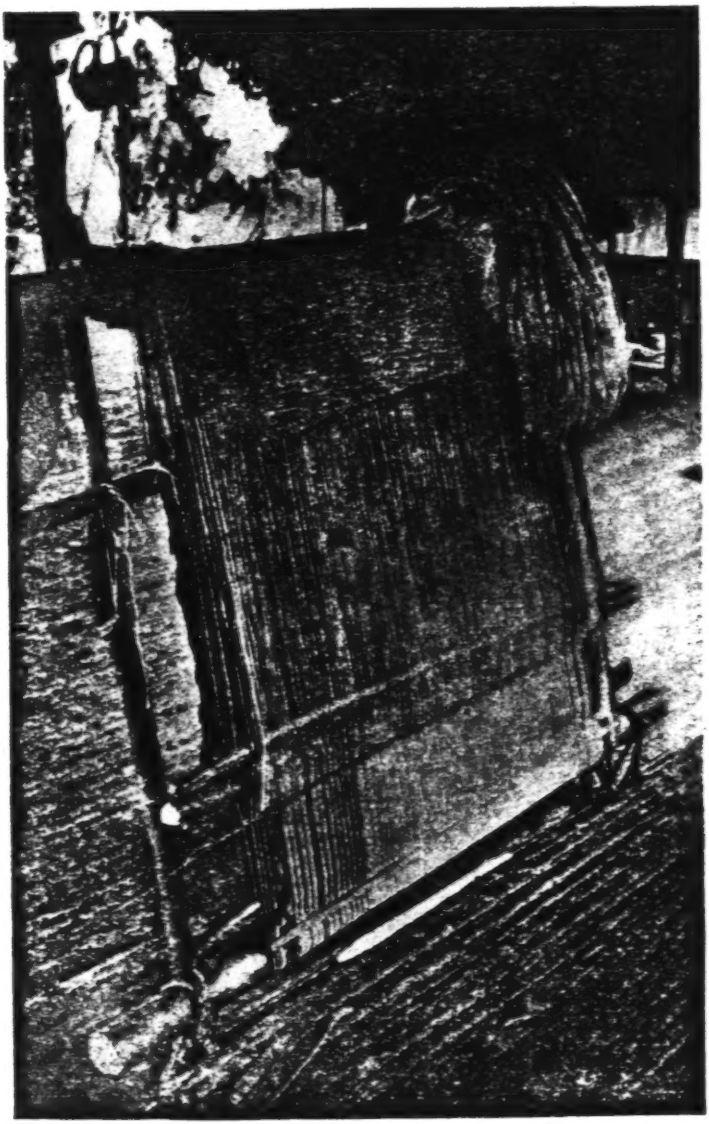

LOOM

[p. 260 (A)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

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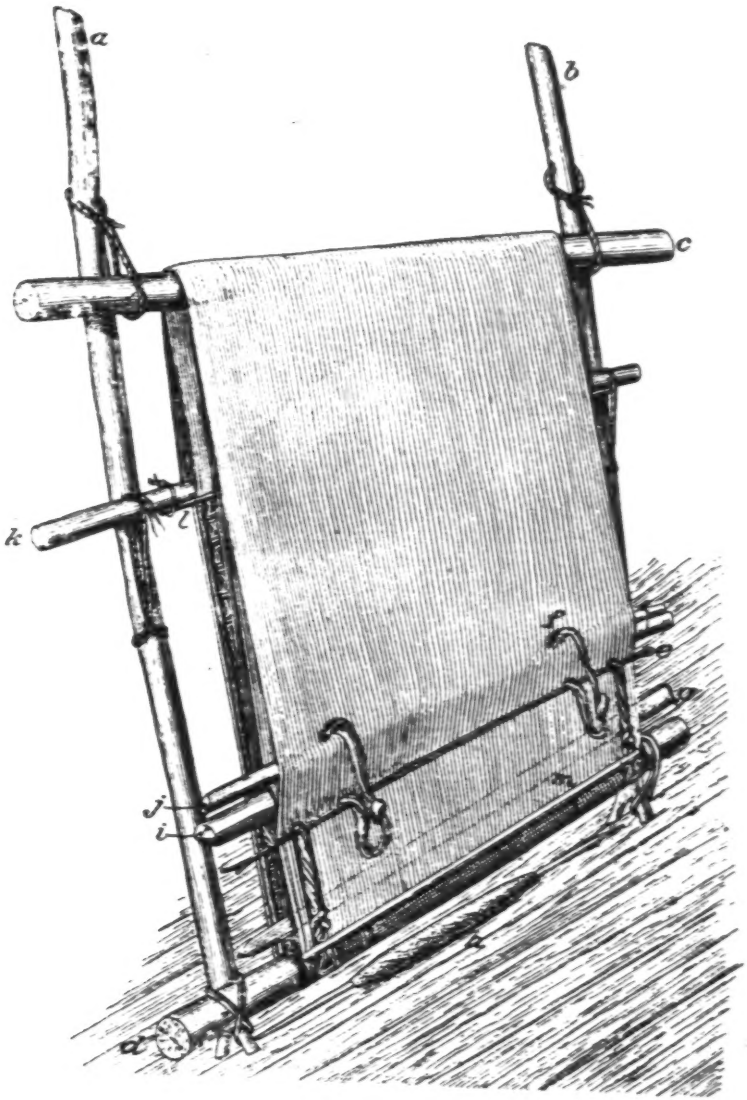

DIAGRAM OF LOOM

[p. 260(B)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

These active, movable elements are the two warp separators (*i*, *j*), the two warp guides (*e*, *f*), the shuttle (*h*), and the batten (*g*). The warp separators are fairly small transverse wooden bars, one usually somewhat smaller than the other, used in bringing to the front certain sets of warp strands as the weaving progresses. In certain cases where relatively simple designs are used, only one of these bars is required—the larger of the two is then employed. The warp guide (*e*) is employed in a similar manner; in fact this element consists chiefly of a long and fine pita string, which passes in and out of the warp strands and includes in its folds each alternate strand. As it comes to the front it passes round two flexible pitigua rods and thus forms a continuous line across the unwoven portion of the textile and serves, by virtue of the fact that in its folds are included each alternate warp strand, to bring to the front, as the pitigua rods are pulled outward, the warp strands which were at the rear when the shuttle was last passed through between the two sets of warp. On the other hand, since the horizontal rod *i* passes between these two sets of warp strands and has in front of it the set not included within the folds of the long string which forms *e*, the two work in opposition to each other, so that, when the warp strands controlled by *e* are brought forward, they may be again forced backward by rolling *i* down toward *e* sufficiently to carry back those controlled by *e* and bring forward those controlled by *i*. As above stated, the smaller rod *j* is not always used. When present, its function is to control certain strands of colored warp which it is desired to form into a design at regular intervals, such as an

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 alternation of small white and green squares. In mantas where such designs do not appear, the rod *j* is obviously not necessary.

While it is possible to control by such a rod as *j* the elements of a design composed of an equal number of strands at each insertion of the shuttle, and thus by a single downward movement of the rod to bring forward all the strands needed for several such lines of design, a special device, such as that at *f*, for sorting warp strands, is required in making more elaborate designs such as bird and animal forms and many geometric figures where varying numbers of warp strands are needed in different portions of the pattern. Such a device consists of loops of pita string, each including one of the colored warp strands used in making the particular set of designs under consideration. Having first manipulated the two portions of the warp in the general way provided for by the continuous string *e* and by the horizontal rods *i* and *j*, those particular warp strands used in making each one of the lines of especially elaborated designs must next be manipulated by a set of string loops such as those at *f*. This becomes simply a process of counting out the number of strands required for the particular part of the design in hand, this number varying as each different part of the bird, animal, or other pattern is reached. Having counted out and separated the loops containing the particular strands which it is desired to show at the front of the cloth, these loops are shoved down against *e*, the remainder being forced upward in order that they shall not interfere with the others when the two sets of strands are separated, which is done by simply

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

pulling upon those loops which contain the particular warp strands which it is desired to bring forward. When these are brought forward the weaving batten is passed behind them and the whole set of warp strands is properly separated and ready to receive the woof. This is accomplished by passing the shuttle through below the weaving batten, which is placed with its edges horizontally in order to separate the two sets of warp strands. 286

In threading up the loom, the warp threads are fastened to a thin, narrow, palm-wood rod (*l*). A heavier rod (*k*), on either side of which one-half of the warp strands pass, is fastened by means of loops to *a* and *b*, and bears the strain of the weaving as the batten is brought down with considerable force in order to drive down the preceding course of woof and produce a tightly woven piece of cloth.

The only remaining movable element of the loom, except the batten and the shuttle, is the width gauge (*m*), which is used to hold the manta to an exact width. This rod is made either of bamboo or of palm-wood, and is provided at either end with a single short and sharp point, which is stuck into the edge of the manta just below the line along which the weaving is being done. [824]

The batten (*g*) is a flat piece of wood, usually about two or two and one-half inches wide, and of a length six or eight inches greater than the width of an ordinary manta, or about three and one-half feet. Its edges and point are much like those of a heavy double-edged sword, and both the edges and the point are fairly sharp, thus permitting the point to be inserted easily between the warp strands and also allowing a direct and forceful blow

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 to be struck along the full width of the textile with the edge of the sword. These swords are always made of
286 the wood of the quende tree. This is a reddish, very hard
824 and durable wood, the surface of which is made extremely smooth with the leaf, lya'pic hakı, which is used especially for smoothing wooden objects. The quende is a rare wood in this region, and the battens are, on this account and also by reason of the difficulty of their manufacture, highly prized by the Cayapa. In fact, the
286 batten or sword is the only part of a loom which it is at all difficult to make and which cannot be easily replaced if broken or lost.

The shuttle is simply a cylindrical double-pointed rod of palm-wood, about half an inch in diameter and of a length slightly greater than the width of the cloth. Upon this rod is wound the weft. Beginning near the middle, the first winding is done in a space of six or seven inches along the middle of the shuttle. In passing the thread from one end to the other of this wound section, approximately a half-turn of the shuttle is made, the thread being given a complete turn about the shuttle at the end of the wound section, then being passed back with another half-turn to the opposite end of the wound section where another complete turn is given to hold it in place. So the winding proceeds back and forth from end to end of this middle section, each time the turn of the thread at the end of the section holding it from slipping. The wound section gradually increases in length until, when the shuttle is completely wound, it measures twelve or fifteen inches and forms at the middle of the shuttle a cigar-shape section from an inch to an inch and a half

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

in diameter. Since the thread is very fine, a great length may thus be wound on a single shuttle. 286

In setting up a loom, the upper horizontal bar (*c*) naturally falls into its proper place, but the lower bar (*d*) must, as above mentioned, be brought to its place by two pita strings, which pass from *d* to *c* and which serve also to hold the movable rods *i* and *j*. In inserting the movable rod *i*, the string which naturally comes at the front passes back of *i* and the one which naturally comes at the back passes in front of it, thus forming a sort of double figure eight. This holds the rod *i* in position, but at the same time admits of its movement up or down as may be desired. The rod *j* is similarly held. In this condition the loom is ready for threading.

Balls of warp thread of the desired colors are selected, white or brown cotton being used as the background, and lavender, green, red, and blue for working out the designs. In every case the warp elements are those which are visible and which produce the designs, and the stringing of the warp upon the loom requires considerable care in order to get the desired colors in the proper places and to get just the right number of warp strands in any given band. In stringing the loom the threads are wound round and round the two horizontal bars, *c*, *d*. The back of the loom when threaded appears as a sheet of fine parallel threads with nothing inserted among them. The front, on the other hand, presents a very different appearance, for in this winding every other thread passes behind the movable bar *i*, while the remaining threads pass in front of it. In this way *i* divides the front sheet of threads practically into two sections of equal numbers.

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

•286 This is not strictly the case, however, for along those lines where it is intended to work out an elaborate pattern all the colored warp strands are passed back of the bar *i*.

Having completed the threading of the loom in this manner, two pieces of the flexible pitigua are obtained, together with a ball containing a very long and fine pita string. With these the guide *e* is made. The string is passed in and out between the adjacent warp strands upon the front surface of the loom, so that the warp strands in the rear half of this front sheet, that is, those strands lying back of the transverse bar *i*, are included, each in a separate turn of the string as it passes back between the warp strands that lie in the forward half of this sheet and again comes to the front. Each time this string comes to the front, it is wound in and out in the shape of a figure eight over the two flexible pitigua rods, the two rods being included in the loops of the eight. This holds the string firmly along this line at the front and permits it to pass back and to include another of the rear warp strands, after which it again comes to the front and repeats this course until the entire guide (*e*) is completed. As above stated, in weaving it is necessary only to pull forward upon these two transverse pitigua rods with their attached string to bring forward all the warp strands at the rear of this front sheet or set and pull them completely through, each individual strand passing between the adjacent warp strands lying in the front part of this set. Thus the strands which were at the rear now become the front strands, and those which were at the front become the rear strands. The lateral pressure of the strands upon one another is sufficient to hold

3: Barrett E-5 (1908-1909)1925
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WOVEN FABRIC BEING STRETCHED

[p. 266 (A)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

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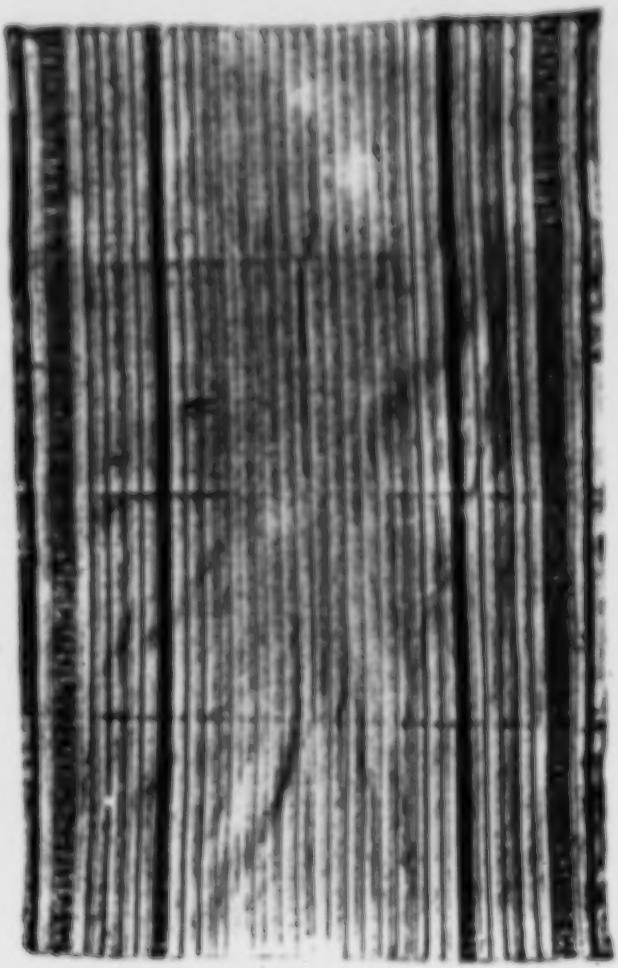

MANTA OR SKIRT

BARRETT—CAYAPA INDIANS

[p. 266(8)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

them in place when once they have been drawn forward, 21(
thus when it is desired to bring forward these rear strands, the transverse pitigua rods *of e* are pulled forward and the batten is inserted between what then becomes the front set of warp strands and those which are then at the rear. This sets the entire warp in the proper order for producing this certain course in all those simple designs which do not require special sorting of the warp elements.

By the use of the guide *e*, as above mentioned, the relative positions of the warp strands were reversed so that those which were originally at the rear and which passed back of the guide rod *i* are now at the front, and vice versa. Obviously, therefore, when it is desired again to reverse the relative positions of these two sets of warp strands, it is necessary only to bring the bar *i* down, which is always done with a rolling motion, thus gently forcing the strands that passed back of the bar, but which are now in front at the point where the shuttle and the batten were last inserted, again to the rear and bringing those which are now at the rear but which formerly passed over the front of the bar *i* again to the front at the point where the shuttle and batten are next to be inserted. By the use of the rod *i* and the guide *e* in this manner, it is of course possible to bring forward alternately the two sets of warp strands in a wholesale way, as they are required in the weaving.

If a perfectly plain piece of cloth were woven in this manner, no devices for shifting the warp other than the two above mentioned would be necessary, since no difficulty would be encountered in the matter of designs. A fairly simple device is used in those cases

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

• 286 where certain regular alternations only are needed. This is a smaller bar (*j*) which controls certain of those strands that pass in front of the bar *i*. This bar (*j*) has no connection with the rear set of these strands. Now, when all the strands passing in front of the bar *i* are forced to the rear by pulling the guide *e* and its set of warp elements forward, those certain strands of the set which pass in front of *i* but which are needed forward, are brought to the surface by rolling *j* down over *i* to a point where it is possible to insert the batten so as to bring these few elements to the front.

Where still more elaborate designs, such as complex geometric figures, animal and bird forms, and others, are desired, it is necessary each time to sort out by hand the special warp strands needed for the particular line of design then in hand. As above mentioned, the transverse bar *i* divides the set of warp strands into two groups approximately equal in numbers, the alternate strands passing respectively in front and behind the bar. All those colored warp strands, however, which are used for these more elaborate designs pass to the rear of bar *i*, and in order to sort these out and bring them forward as needed, a device (*f*) similar to that used in connection with the two transverse pitiguas in *e* is employed, though in this case the individual threads catching the warp strands are much longer. The threads employed in the guide *e* and which are used to bring the whole rear section of the warp to the front, are not attached to the particular strands controlled by *f*. The longer threads of *f* pass about these, and these only. Thus, after those strands which are controlled by *e* or those controlled by *i* have

3: Barrett E-5 (1908-1909) 1925
SD 6 Cayapa SD6

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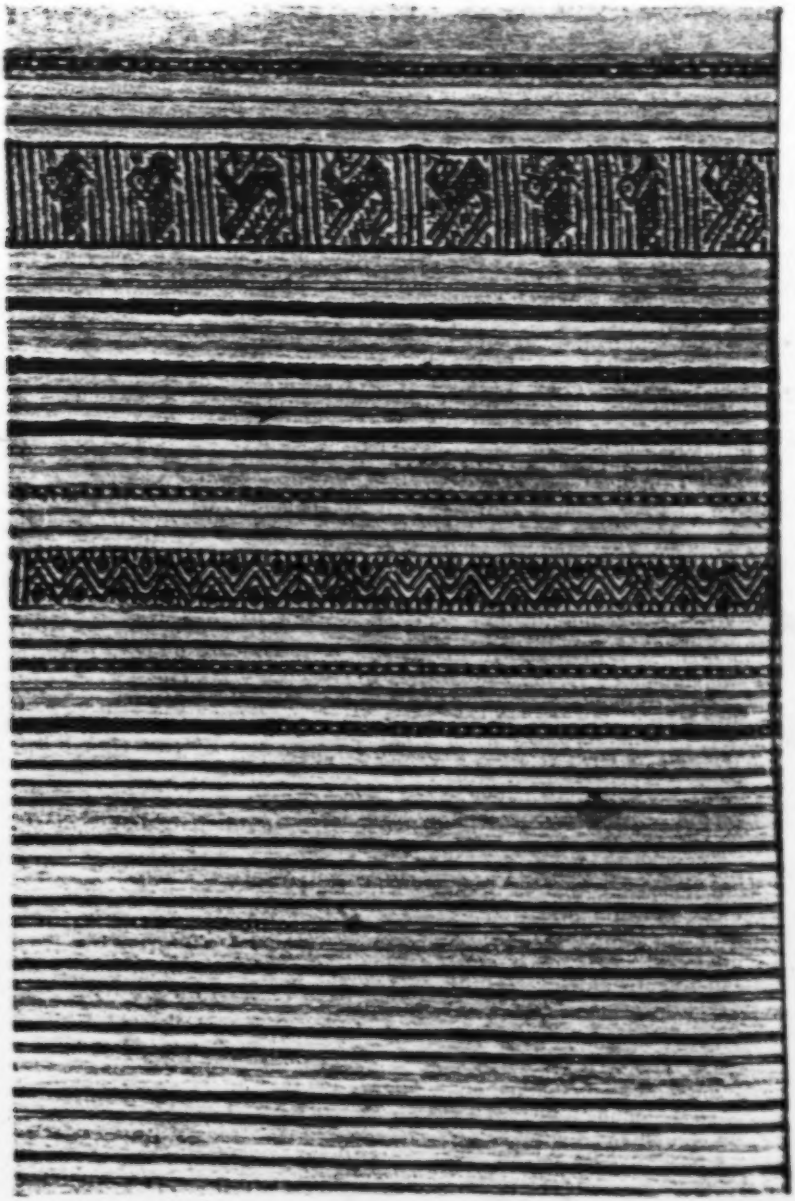

[Black and white reproduction of a color plate]

[p. 268(A)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

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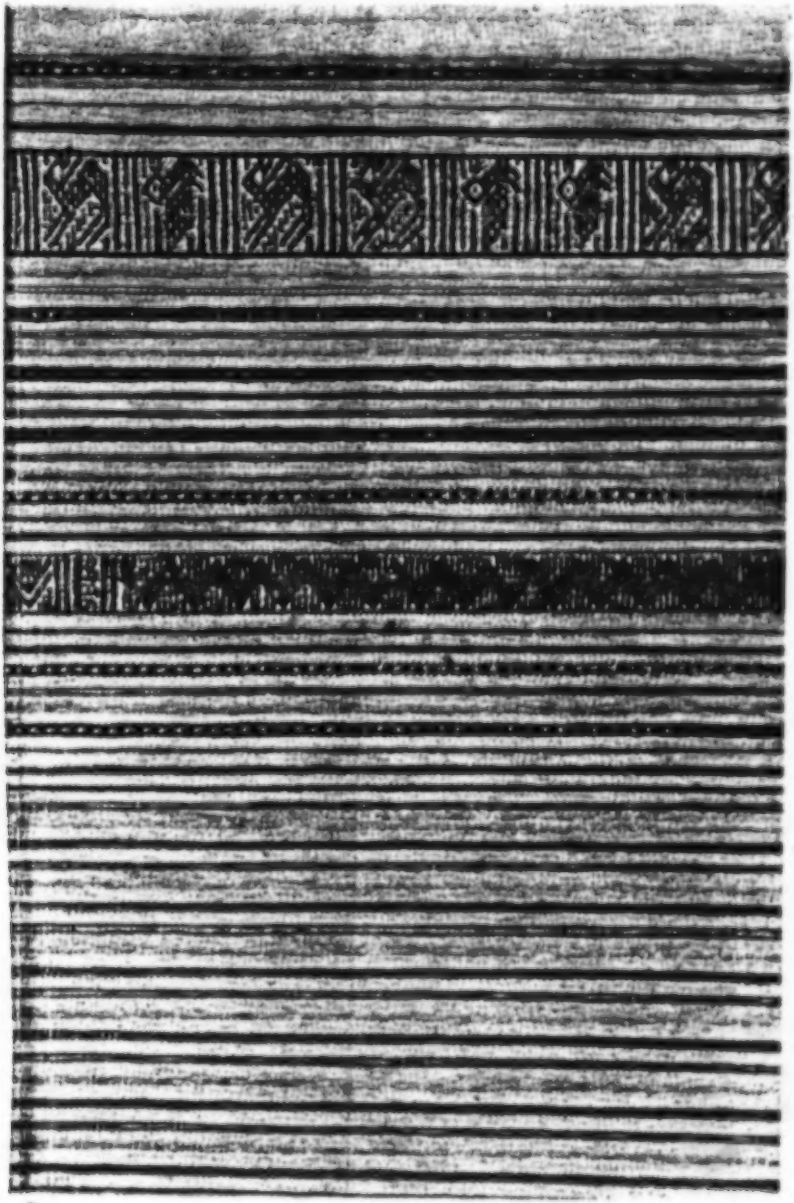

DETAIL OF MANTA PATTERN

[Black and white reproduction of a color plate]

[p. 268(B)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 been brought into their proper position and the warp set in a general way for the particular line of weaving in hand, the bunch of long strings comprising *f* is taken up and are sorted out. They are counted off and the ones attached to those particular warp strands which it is desired to bring to the front are passed downward, the remainder being passed upward to a distance of several inches from the former. Having arranged one after another of these sets of warp strands, and having thus set in proper order the particular strands which are to be brought to the front, the pointed end of the batten (*g*) is inserted and passed from the right toward the left. Those particular strands controlled by the strings of *f* which are needed at the front are pulled forward with the left hand as the batten is inserted. No attention need be paid to any of the remainder of the warp strands as the batten is inserted, since these are automatically controlled by *e*, *i*, and *j*.

Having thus properly inserted the batten, it is grasped at each end by one hand and is brought down several times with forceful and even blows, thus driving the warp strands, each pair of which crosses above the preceding horizontal weft element, down very closely upon it. The batten is then raised three or four inches and so turned that its flat surface lies horizontally. This spreads the two sets of warp elements apart and the shuttle is passed through between them, thus bringing another of the fine weft elements into position. This weft element is pulled very carefully into its place and given just the right tension, since any undue amount of tension upon it, or on the other hand any undue laxity,

3: Barrett E-5 (1908-1909)1925
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286 would cause an unevenness at the edge of the textile, or, what would be worse, a series of these might cause a puckering or a gaping at some point in the textile body. The batten is then withdrawn and the warp elements are crossed above this new weft element, and are set in their proper positions by means of the devices *e*, *i*, *j*, and *f*, as above described, after which the batten is again inserted and brought down edgewise with its forceful blows to drive firmly the new crossing of the warp elements down upon the newly inserted weft.

From the above description it will be seen that the patterns of Cayapa soft textiles are formed entirely by the warp elements, the weft being almost entirely invisible in the properly made cloth.

There is but this one cloth technic among the Cayapa, the only approximation to a variation of this being in those designs where a diagonal line is desired, in which case there is an arrangement of the elements that approximates twilling.

As before stated, the loom is so arranged that its lowest part is not more than four or five inches above the floor, and it is upon the lower portion of the loom that the [516] weaving itself is done. The weaver sits, tailor fashion, upon a piece of bark cloth only, or sometimes upon a very low stool, and weaves a section of cloth eight or ten inches in height, after which the lashings of the rod *k* are loosened so that the work may be slipped around as would an ordinary band upon the two transverse bars *c* and *d*, thus bringing the last line of the work down almost to the bar *d* again. Keeping the work low in this manner has a double advantage: it is easier to

3: Barrett E-5 (1908-1909)1925
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PL. CXIV

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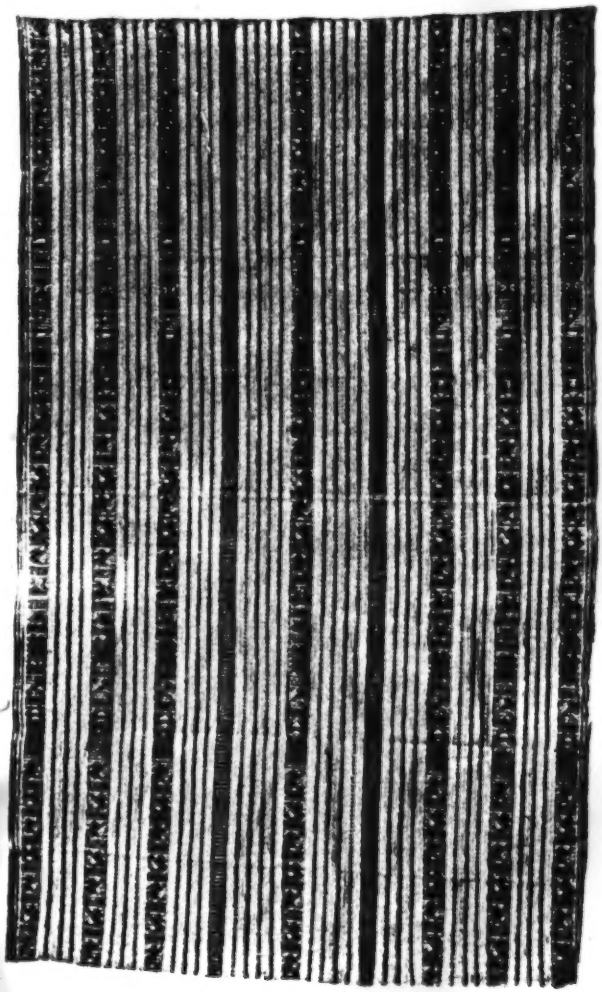


MANTA OR SKIRT

BARRETT—CAYAPA INDIANS

[p. 270(1)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 strike a forceful blow with the batten if it is struck at a point somewhat below the level of the shoulders, and it is easier to manipulate the several devices, *e*, *i*, *j*, and *f*, used for controlling the warp elements. Thus, by a series of such readjustments, the line along which the weaving is being actually done is kept uniformly low, and the labor therefore rendered as easy as possible. This continues until the proper length of the textile has been reached, when the two ends of the woven section are usually about a foot apart, the loom having been originally set up with this allowance. A narrower section of unwoven warp strands it would be impossible to have at this juncture in this particular technic, since with a narrower section there would not be sufficient room to manipulate the devices used for controlling these strands.

Having completed the weaving, two fine hard-twisted cotton or pita strings are prepared and with these the ends of the woven section are bound. This binding is done with two elements, one horizontal, passing on the front, and the other wrapping element passing spirally around the horizontal element in such manner as to include at each turn two pairs of warp strands. As it passes back it goes above the horizontal cord. It then takes a turn downward and toward the right in such a way as to include two pairs of warp elements and again comes out below the horizontal cord and on the front surface of the cloth, after which it goes up and over this horizontal cord and includes two other parts of warp elements as it again passes downward and behind the horizontal cord. By a repetition of this method the whole edge is securely bound from the left toward the

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 right. When this is completed the batten is again inserted and this binding firmly driven home against the last row of weaving.

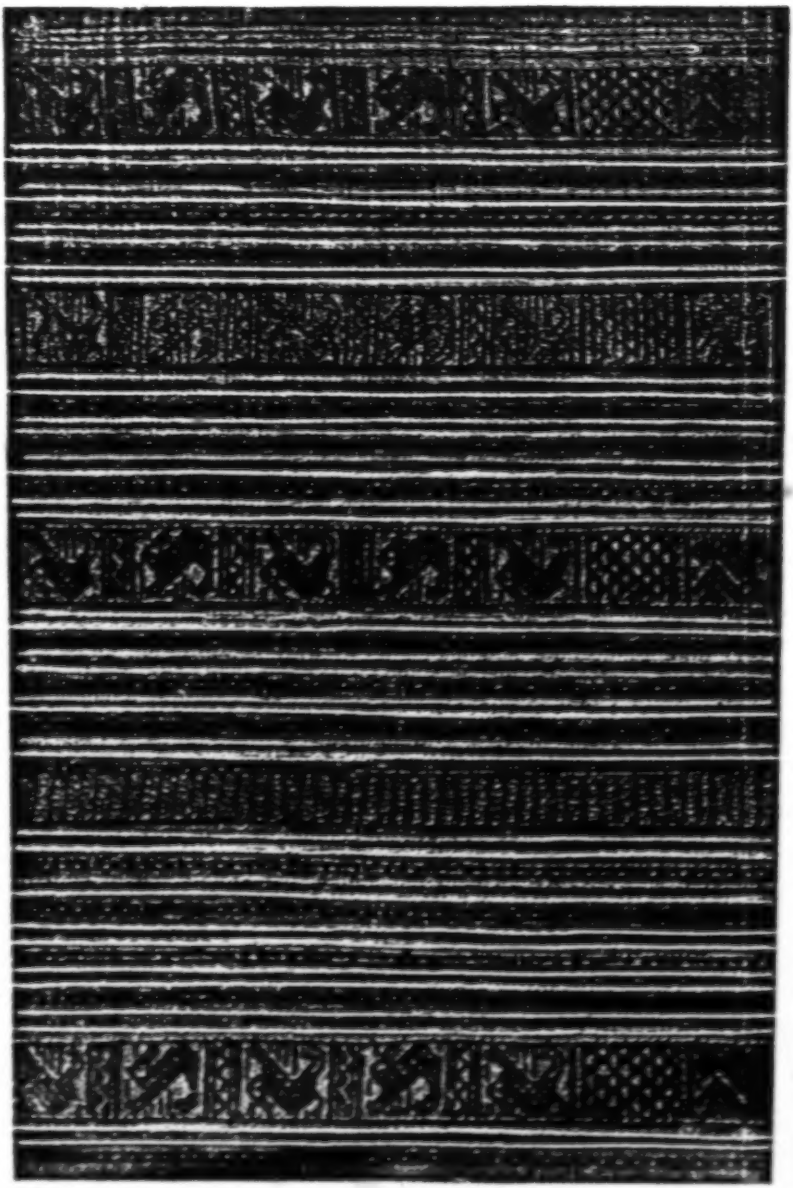
The colored warp elements are now carefully selected and cut out close to the two ends of the weaving. Thus there are left only the white or brown cotton threads used as the body of the warp and the background for the patterns. These are cut about midway between the two ends of the weaving, thus freeing the textile from the loom.

Now and then it happens that, in the course of weaving, some of the warp or weft elements are broken, when it is necessary to tie them. The loose ends of such a tied strand naturally appear on one or the other of the surfaces of the fabric, which is now carefully inspected and such projecting ends cut off with a sharp knife.

Two small wooden rods a few inches longer than the width of the textile are next procured and the textile at each end is tied by means of the fringe of warp elements to one of the rods. There are twenty or even thirty such ties made around each of the rods. The textile is then taken to the river-bank, where four posts are driven in such manner that it may be stretched horizontally by tying the ends of the rods to the posts (pl. CXI). The fabric is then thoroughly wet and allowed to dry in the sun, which shrinks it as much as is possible, adjusting the strands one to another and tending to reduce any stiffness in the textile.

286 412 When dried the fabric is taken down and the fringe untied from the rods. A hemispherical calabash vessel or other rounded surface is next provided and with a

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6



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[Black and white reproduction of a color plate]

[p. 272(A)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

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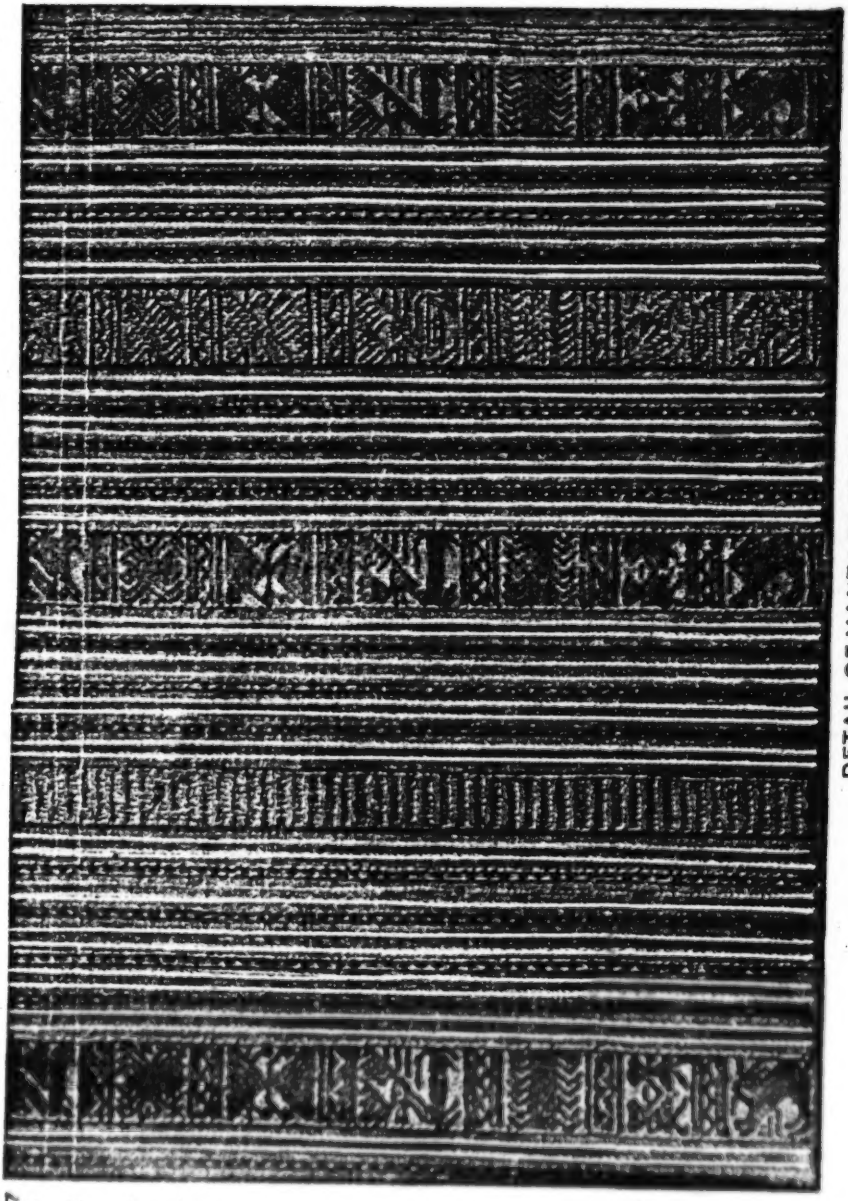

DETAIL OF MANTA PATTERN

[Black and white reproduction of a color plate]
[p. 272 (B)]

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

sharp knife the fringe, placed against the calabash, is trimmed close to the binding at the edge. The fabric is now ready for use.

Mantas (pls. CXII–CXV), called tyū′nya by the Cayapa, used by the women as skirts, and also mochos (pl. CXVI), called wa′ra, are almost the only textiles now made. No other aboriginal garments are worn except the narrow belt (pl. CVII, 1, 2) used by the women in connection with the manta. These belts are woven in precisely the same manner as are the wider textiles, except that a loom is not used unless it is desired to make a wide and elaborate belt.

For narrow belts two short wooden pegs are driven into a section of a plantain or other succulent stem, and upon these the warp strands of the belt are set up on the two transverse bars (*c*, *d*) of a regular loom. For a narrow belt, pita string is often used as the weft. The wide belts are often nicely decorated with geometric or bird and animal figures. For weaving a narrow belt, no shuttle or batten is used ordinarily, the string being passed in the form of a ball between the warp elements, and the finger used to drive the weaving down tightly. The ends of narrow belts are not provided with a special binding; the warp strands at each end are simply braided, usually in two sections, the braids being used for the attachment of tassels made usually of red or blue woolen yarn.

Mantas, of course, are of various sizes, governed by the age of the persons for whom intended. The manta of an adult woman usually measures about thirty by sixty inches, and requires often several months for its weaving,

3: Barrett E-5 (1908-1909)1925
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286 since such weaving is done in large measure only at odd times.

The trunks or mocho (pl. CXVI) worn by the men is [294] made of cloth woven by the women, a special narrow fabric being produced for this purpose. One of these pieces of cloth contains enough for two mochos. It is always cut and sewed by the men themselves, some of [462] them being adept with the needle. The women know almost nothing about sewing. It ordinarily even falls to the men to make the small mochos for the boys until they are old enough to sew for themselves.

The subject of manta designs is treated under Decorative Art.

CORDAGE AND NETTING

283 [824] In most cases cordage and nets are made of the fine, long, white fibers obtained from the leaf of the plant called in Spanish pita and in Cayapa sa′nō, and to a much more limited extent the fibers from the bark of a tree called in Spanish cosadera and in Cayapa señgī′lya are used.

The preparation and manipulation of pita, to which reference has been made hitherto, are quite elaborate. The long, slender, full-grown leaves of the plant are cut off close to the ground and brought to the house in bundles, such as those shown leaning against the house in pl. LXVI. While the leaf is still green the fibers are extracted by first scraping off the succulent portion of the concave side of the leaf and then stripping out the fibers 283 from the remainder. For this scraping there are required 413 a semi-cylindrical log of palm-wood, called sañwi cī′nō,

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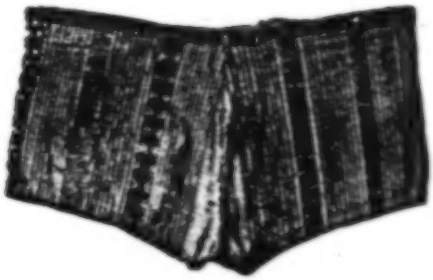

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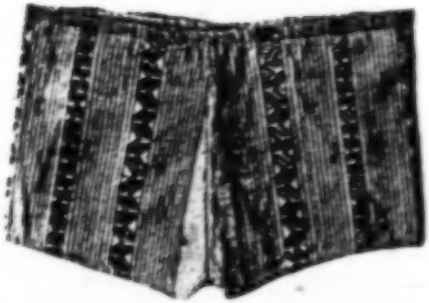

2

3

MOCHOS OR TRUNKS

[p.274(A)]

3: Barrett E-5 (1908-1909)1925
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283 several other cords are completed, these are added to the braids at the ends. Thus by adding group after group of these braids, when the whole bundle of cords is completed and both its ends are braided it forms a skein of cords which appears like that shown in pl. CXVIII, 3. The skein is kept in this form and the individual cords are extracted from its middle. This tends to pull backward and to loosen the braids at the two ends of the bundle and thus easily to free the ends of the individual cord from the braids.

[824] The other kind of string obtained from the bark of the tree called in Spanish cosadera and in Cayapa señgī'lya, is made in a manner similar to that employed in making pita string. The fibers used in making this string are obtained by beating out the bark by the method employed in making bark cloth. After being washed, as in the case of bark cloth also, these fibers are dried, folded, and bound into bundles (pl. CXIX, 2). When needed, the sheets are taken from the bundle and the fibers are separated and twisted into a heavy and rather loose cord which serves very well for making a hammock or as the main cable of a trot-line (pl. CXIX, 1), but otherwise is little used. The string bears the same Cayapa name as the tree itself, and its primary use is for hammocks, which are woven with the same technic as are fish-nets, shortly to be described. The meshes are, however, extremely large and are made without the aid of a mesh-stick, being kept sufficiently even by the eye alone.

[352 227]

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The Cayapa do not splice cords by twisting together the fibers at their ends, as is done by some Indians. An individual pita cord is usually from ten to sixteen feet

3: Barrett E-5 (1908-1909)1925
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in length and is used as a distinct unit in the weaving. When the weaving has proceeded to within six or eight inches of the end of the cord, a second is simply tied to it in a square knot and thus is added a new unit of material. Hence no shuttle is required as among peoples who use a very long thread or cord. In fact the only implement required in weaving is the mesh-stick, which is usually of bamboo, although large ones are sometimes made of wood. It is ordinarily from five to seven inches in length and varies in width according to the size of mesh desired (fig. 26). The relatively wide ones used in weaving the large-meshed set-net are called wa'lō tcīpapa, thus differentiating this form from that known as a/a'ia tcīpapa, or ate' tcīyapa, used in weaving the casting net. The general term for mesh-stick is ya' tcīpapa.

FIG. 26.—Mesh-sticks or gauges for weaving nets

In weaving one of the large set-nets, such as that shown in pl. CXX, 2, and called by the Cayapa wa'kū, the required number of knots, usually five, is first tied to start the corner of one end. By adding a knot at each end, new meshes are added; and as each row of meshes is woven, the width of the net may be increased to any desired degree. This first portion of the net forms a right triangle, one side of which represents the width of the net, the other an equal length along one side of the net. The hypotenuse of the triangle is the line along

3: Barrett E-5 (1908-1909)1925
SD 6 Cayapa SD6

286 which the weaving is done. By weaving now evenly along this line without adding more meshes to the succeeding lines, a rectangular net of the desired length is produced. The final corner of the net is made by dropping knots and meshes in the succeeding rows of weaving: in other words, by exactly reversing the process employed in starting the original corner.

[284]

FIG. 27.—Net weaving and detail of knot

All nets are woven with the same type of knot, two details of which are exhibited in fig. 27. In *a* is shown one of these knots opened to a considerable extent, and in *b* this knot is shown as it appears closed and drawn tightly in the net. The use of the mesh-stick is also shown in the figure, which illustrates the beginning of a conical dip-net. The technic of this net differs somewhat from that of the set-net above described, but the knot employed and the use of the mesh-stick are the same.

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SD 6 Cayapa SD6

Starting with a series of five knots and meshes at the point, this net is widened, as in the case of that above described, by adding an extra mesh at each end of each course. In addition, an extra mesh is added at the middle of each course, thus producing a double line down the middle of the net, as shown in fig. 27. To complete the net it is necessary only to join the open edges. This produces a conical net about two feet deep from the point to the opening, which is itself about thirty six by eighteen inches.

The principle of the conical casting net, shown in pl. cxx, 1, is presumably adopted from the negroes, being made in exactly the same way as the nets manufactured by them. Furthermore, it bears the name ata'is, clearly derived from the local Spanish term atarraya.

In general technic this net is similar to the set-net above described, although its point is started quite differently. First a considerable number of fine pita cords (in one instance forty were counted) are braided tightly together to form a strong loop about two inches long, into which is fastened the line by which the net is drawn in after a cast is made from the canoe. The loop must be very strong, and in order to add to its strength it is tightly wound for a space of three-quarters of an inch along its lower part. Out of this binding emerge therefore, in the above-mentioned instance, the forty pairs of strands which are immediately tied to form the first course of forty knots and meshes. The second course has the same number, but thenceforth the number increases. Into every alternate mesh of this second course is looped another cord, thus producing in the third course

3: Barrett E-5 (1908-1909)1925
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284 sixty meshes. This number is kept up to the seventh course, where twenty more cords, distributed at regular intervals, are looped in. Hence in the eighth course eighty knots appear. Thus the additions proceed at these regular intervals, twenty new elements being added at every fifth course up to the sixty-second course of knots. Since this process begins at the second course, these additions are made to come on those courses whose numbers end in two and seven: two, seven, twelve, seventeen, etc. Hence, when the sixty-third course is tied there is a total of three hundred knots and meshes, and this number is maintained throughout the remainder of the one hundred and twenty-seven courses of the net. The meshes of this particular net are two centimeters square throughout its length of eight feet, seven inches. As it is cast by a fisherman it easily covers a circle ten or twelve feet in diameter.

287 286 These nets are usually made of fine pita cord in the upper part of the cone and of slightly coarser cord in the last quarter or third near its mouth. The heavier cord is apparently used in this portion of the net because of the greater wear and tear due to the struggles of the entrapped fish and because the net is weighted about its mouth with sinkers. These lead or stone sinkers often aggregate twenty-five to thirty pounds in weight and carry the net quickly to the bottom.

286 [288] The only other netted device made by the Cayapa is the hammock, which is made either of coarse pita string or of the heavy kuna-kuna string. The meshes of such a hammock are very coarse, hence comparatively few cords are required. To start with, the proper number

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FISHING NETS
[p. 284(a)]

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of cords is selected and of them is made a large loop, the lower inch or so of which is securely wrapped as in the case of the loop of the casting net, and it is from this wrapping that the cords emerge. In one instance, that of a hammock made of pita cord, there are fourteen of these cords coming out of this wrapping. To these are added the end of the cord with which the wrapping is done. With these fifteen cords the body of the hammock is woven. Each alternate course of knots numbers seven, while the next course contains eight. The meshes of such hammocks are not made over a mesh-stick, and hence vary somewhat in the same hammock. In the example above mentioned they range from four and one-half to six inches square. In this instance seventeen courses of knots were required to complete the hammock, which, when closed and stretched, measures eight feet in extreme length. The second end is finished off with the same kind of a loop as that above described. The description of this hammock will serve for all, there being little variation.

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DECORATIVE ART

From considerations of technic the decorative art of the Cayapa falls into four classes: textile decoration, incised decoration, painting, and carving. In the first class belong such designs as appear on twilled baskets, fans, mats, and soft textiles; the second class is confined entirely to the surfaces of calabash utensils and to a slight extent to pottery; the third is found on canoes and on the human body; and the fourth class is confined to wooden dolls, paddle handles, and sometimes seats.

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CLOTH DESIGNS: HUMAN AND MAMMAL FIGURES

[p. 288 (8)]

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which a slight attempt is made to ornament the edge of the shoulder of a vessel with a few incised lines or dots. No names are given to these simple decorations, and no attempt is made to work out any regular patterns even in the rare instances in which they are used.

The designs in hard textiles—twilled baskets, mats, and fans—are purely geometric, fairly simple (as is shown in pl. CV), and few in number. These conditions are quite natural and are imposed by the character of the material and the technic employed. There is comparatively little naming of these designs. Zigzags such as those shown in figs. 3 and 5 of the plate are called dē'tcû, and figures such as are illustrated in figs. 25 and 27 are commonly called kapû'ka, signifying "eye."

Soft Textile Designs

It is in the soft textiles that the greatest variety of both geometric and realistic designs appears and where the only detailed naming of designs occurs. A table of the names of the various manta designs shown in pl. CXXIII-CXXVII, together with a glossary, is given in the following pages. From these data various interesting facts concerning the names of manta designs are apparent.

The names may be classified as: mammals, birds, reptiles, insects, miscellaneous animate objects, parts of animate objects, plants, artificial objects, geometric figures, and untranslatable terms. The following tabulation will show the various numbers in each class.

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Mammals:
- human being
- monkey (two species)
- horse
- burro
- cow
- dog
- goat
- sheep
- guinea pig
- deer

Birds:
- pi'tcû
- la'pitcû
- tû'mbitcîlûli
- hawk
- pelican
- turkey
- buzzard
- frigate bird
- duck
- egret
- dove (general term)
  - pactû'kû
  - wa'pû'pû
- chicken

Reptiles:
- snake (general term)
- boa constrictor
- lizard

Insects:
- centipede
- scorpion
- tick
- spider

Miscellaneous animate objects:
- crab
  - nê'lû
  - te'pûl nê'lû
  - There are also three compound terms in which the word crab appears.
- turtle
- toad

Parts of animate objects:
- eye (general term)
  - little eye
  - kapû'ka ya dêtcû
  - ka'pû tcilara
  - kapûka dalala ke"tû
  - dû'lalara kapûka
- ear
- lizard foot
- lizard egg
- tongue of sting-ray

Plants:
- pitigua
- fruit

Artificial objects:
- feast table
- belt or girdle
- ladder
- steps of ladder
- stick used for face painting
- top
- bait
- steel, of "flint-and-steel"
- canoe design
- cross
- handkerchief design
  - also te'mbû balya'lya

Geometric figures:
- zigzag
  - se'rañ dêtcû
  - ê' dêtcû
  - ûyû'mi dêtcû
  - de"pañmi dêtcû
  - dê'tcû serañ tsû'a
- horizontal

Miscellaneous:
- technic (the bandilas technic is mentioned).
- color

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Untranslatable terms:

balya'lya
balya'lyac
delam ba''ta
de'we
dū'lalara
hō'lara
hū''la
hū'lara
hū'rula
hū'rūlara
kūē'bū
nim bi'lya
pala'cla
pala'la
pala'c lara
pala'lac
pala'lara
pala'ra
palū'c lara
pala'tcū
petī
pū'ka ka
se'rañ
tapū'lyū
tē'pū balya'lya
tyūlya'lya
tyūm bi'lya
wīlū'cla
tyū'ndyū tcī lara

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While there is a large series of geometric figures, as shown in pls. CXXV–CXXVII, and while these appear on mantas in fully as great as, if not in greater numbers than do the realistic figures, inspection shows that these are really variations of a comparatively few geometric elements, chiefly the zigzag, the cross, the triangle, and the rectangle, and that in reality there are not such a large number of distinctive designs as might at first appear. Furthermore, an inspection of the native names of these designs, most of which are of the untranslatable class, shows that the Cayapa recognize these similarities and that little realism is read into the designs by them. In fact the designs called eye, steps of a ladder, crab design (by which is meant the tracks made by a crab in the mud), and steel for striking fire, are the only ones of known significance that show evidence of a tendency toward realism in geometric forms. There may be among the untranslatable terms some which would, if their significations were known, show a similar tendency.

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286 531 Conventionalization of realistic designs, on the other hand, is somewhat more common, though this conventionalization is such as might be expected to be imposed by the nature of the textile and by the technic employed. Among the best examples of this are such human beings as those shown in pl. CXXIII, 12–16, or such toads as those illustrated in 17 and 18 of the same plate.

Another good example of this tendency is shown in fig. 42, called pelican, and in fig. 45 which is called dog and also monkey. In general this tendency toward the conventionalization of realistic designs appears to be present chiefly among the more unskilled weavers, and it will be observed that as a rule the more finely woven and better textiles from a technical point of view show correspondingly greater skill in design and a greater tendency toward realism. In such textiles the designs are usually of such a nature that there can be no doubt as to their import.

Perhaps one of the most striking features of the textile patterns of the Cayapa is what may be termed an abhorrence of vacant spaces. It will be observed that in a design to which any claim to elaborateness can be made, the tendency is to fill all corners and small areas, not directly connected with the main motif of the pattern, with lines, dots, or other small figures.

531 In conclusion, therefore, it may be said that the decorative art of the Cayapa is characterized by the following features:

1. A predominance of geometric patterns which in a large measure bear no names and have no definite signification.

3: Barrett E-5 (1908-1909)1925
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2. The presence upon textiles, and to a lesser extent upon calabash utensils, of realistic designs, which in certain instances tend toward conventionalization.

3. A slight tendency toward the assignment of realistic significations to what appear to be purely geometric forms.

4. The abhorrence of vacant spaces, shown by the filling of all small areas about a large design with dots, lines, and other irrelevant devices.

TABLE OF MANTA DESIGN NAMES

PLATE	FIGURE	
CXXIII	1	human being (tca'tcī)
	2	human being (tca'tcī)
	3	human being (tca'tcī)
	4	human being (tca'tcī)
		toad (sa'pū, Spanish sapo)
	5	human being (tca'tcī)
	6	human being (tca'tcī)
	7	human being (tca'tcī)
	8	human being (tca'tcī)
	9	pala'la (untranslatable)
	10	pala'la (untranslatable)
	11	balya'lyac (untranslatable)
	12	spider (mū'tele, Spanish araña)
		human being (tca'tcī)
	13	human being (tca'tcī)
	14	human being (tca'tcī)
	15	human being (tca'tcī)
	16	human being (tca'tcī)
	17	toad (sa'pū, Spanish sapo)
		hū'rūlara or hū''la (untranslatable)
	18	toad (sa'pū, Spanish sapo)
	19	human being (tca'tcī)
		toad (sa'pū, Spanish sapo)
	20	toad (sa'pū, Spanish sapo)
	21	hū''la or pala'tcu (untranslatable)

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PLATE	FIGURE	
CXXIII	22	monkey (cū′rĭ, Spanish machin, mico; and wo′cū, Spanish mono)
	23	monkey (cū′rĭ, Spanish machin, mico)
	24	horse (k wa′lyū, Spanish caballo), with human being (tca′tcĭ)
	25	horse (kawa′lyū, Spanish caballo)
	26	horse (kawa′lyū, Spanish caballo) goat (tcĭ′bū, Spanish chivo)
	27	horse (kawa′lyū, Spanish caballo) goat (tcĭ′bū, Spanish chivo)
	28	ho′lara (untranslatable) human being (tca′tcĭ)
	29	monkey (cū′rĭ, Spanish machin, mico)
	30	horse (kawa′lyū, Spanish caballo), with human being (tca′tcĭ)
	31	monkey (cu′rĭ, Spanish machin, mico) horse (kawa′lyū, Spanish caballo)
	32	No interpretation obtained
	33	horse (kawa′lyū, Spanish caballo)
	34	horse (kawa′lyū, Spanish caballo)
	35	cow (waga′ra, Spanish vaca)
	36	horse (kawa′lyū, Spanish caballo)
	37	horse (kawa′lyū, Spanish caballo)
	38	pelican (nana″ ka, Spanish alcatraz) crab (ne′lū, the small red land-crab) monkey (wa′cū, Spanish mono)
	39	monkey (cū′rĭ, Spanish machin, mico)
	40	deer (ma′na)
	41	deer (ma′na) hawk (hūya′lyū, Spanish gabilan)
	42	pelican (nana″ ka, Spanish alcatraz)
	43	human being (tca′tcĭ)
	44	No interpretation obtained
	45	dog (kū′tca) monkey (wo′cū, wa′cū, Spanish mono)
CXXIV	1	guinea pig (a″tse) sheep (ōic′a, Spanish oveja)
	2	guinea pig (a″tse)
	3	guinea pig (a″tse)
	4	sheep (ōica, Spanish oveja) guinea pig (a″tse)

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PLATE	FIGURE	
CXXIV	5	human being (tca'tcī), with guinea pig (a''tse), or sheep (ōī'ca, Spanish oveja)
	6	human being (tca'tcī), with sheep (ōī'ca, Spanish oveja), or guinea pig (a''tse)
	7	horse (kawa'lyū, Spanish caballo) dog (kū'ıca)
	8	guinea pig (a''tse) sheep (ōī'ca, Spanish oveja)
	9	goat (tcī'bū, Spanish chivo)
	10	guinea pig (a''tse) cow (waga'ra, Spanish vaca)
	11	guinea pig (a''tse) burro (bū'rū)
	12	An animal form for which no name was obtained
	13	An animal design; no information available. It resembles a lizard and might be given by the Cayapa the name of any one of several species of lizards.
	14	horse (kawa'lyū, Spanish caballo)
	15	cow (waga'ra, Spanish vaca)
	16	monkey (cū'rī, Spanish machin, mico) sheep (ōī'ca, Spanish oveja)
	17	human being (tca'tcī) tyu'ndyū tcī lara (untranslatable)
	18	An animal form; no name obtained
	19	dog (kū'tca)
	20	bird (pī'tcū; particular species not stated
	21	pelican (nana''ka) horse (kawa'lyū). These names apply to the large bird which is the chief figure in this design. The small triangular portion of this design is called tembū balya'lya or tembū pī'lya (tembū, a contraction of tembū'pū, signifying handkerchief)
	22	domestic turkey (kastē'lya walya'pa, literally Spanish or Castilian chicken) kūē'bū (untranslatable)
	23	bird (pī'tcū)
	24	bird (pī'tcū) dove (a small species of a reddish color, called by the Cayapa wa'pū'pū)

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Plate	Figure	
CXXIV	25	pelican (nana″ka) dove (a large reddish species, called in Cayapa pactû′kû)
	26	pelican (nana″ka) chicken (walya′pa)
	27	No name was obtained. It resembles the design shown in figure 33, which was called pelican (nana″ka)
	28	horse (kawa′lyû, Spanish caballo). This interpretation appears to be in error. The design is clearly a bird form, not that of a horse. It resembles in all essential details the design shown in figure 33, which was called pelican (nana″ka)
	29	white egret (ka″tsû, Spanish garsa) bird (pî′tcû) pelican (nana″ka) dove; exact species not stated
	30	pelican (nana″ka)
	31	bird (pî′tcû) dove; exact species not stated
	32	No name was obtained for this design, but in many respects it resembles that shown in figure 45, which was called white egret (ka″tsû, Spanish garsa)
	33	pelican (nana″ka)
	34	frigate bird (nyambûwa′tû)
	35	pelican (nana″ka)
	36	buzzard (kû′ndûrûrû, petyû′tyû, Spanish gallinaso) pelican (nana″ka) horse (kawa′lyû, Spanish caballo) goat (tcî′bû, Spanish chivo)
	37	pelican (nana″ka) chicken (walya′pa)
	38	pelican (nana″ka) duck (pa′tû, Spanish pato)
	39	tu′mbîtsîîîî (a small black bird with red beak)
	40	pelican (nana″ka)

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CLOTH DESIGNS: MAMMAL, BIRD, AND INSECT FIGURES

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PL. CXXV

CLOTH DESIGNS: MAMMAL GROUPS AND GEOMETRIC FIGURES

[p.296(B)]

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Plate	Figure	
CXXIV	41	pelican (nana″ka)
	42	dove (a small reddish species, called by the Cayapa wa'pū'pū)
	43	No name was obtained for these two birds. They would be called birds (pī'tcū), at least, and would probably be given specific names
	44	bird, a small species, black and yellow in color, a good singer and is much kept by the Cayapa as a pet (la'pī'tcū, Spanish pichichu) buzzard (petyū'tyū, kū'ndūrūrū, Spanish gallinaso)
	45	white egret (ka″tsū, Spanish garsa)
	46	spider (mū'*t*ele, Spanish araña)
	47	spider (mū'*t*ele, Spanish araña)
	48	spider (mū'*t*ele, Spanish araña)
	49	scorpion (alaga'ra, Spanish alacrán) spider (mū'*t*ele, Spanish araña)
	50	scorpion (alaga'ra, Spanish alacrán)
	51	No name obtained for this butterfly-like design
	52	No name obtained for this bird-like design
	53	turtle (pītcī'lī)
	54	turtle (pītcī'lī)
	55	crab—the small red land-crab (nē'lū) crab—a certain coast species (*t*epūī ne'lū) karna'da (probably from the Spanish). The term is said to signify bait and also to be the name of a certain species of crustacean called in Spanish camaron brava
	56	crab—the small red land-crab (ne'lū)
	57	centipede (se'pīnde)
	58	bīmbū'ka (piande, a species of lizard) crab—the small red land-crab (ne'lū)
	59	turtle (pī'tcī'lī) toad (sa'pū, Spanish sapo)
CXXV	1	human being (tca'tcī)
	2	human being (tca'tcī)
	3	monkey (cū'rī, Spanish machin, mico)
	4	monkey (cū'rī, Spanish machin, mico)

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PLATE	FIGURE	
CXXV	5	monkey (cū'rī, Spanish machin, mico)
	6	bird (pī'tcū) with monkey (cū'rī)
	7	No interpretation was obtained for these figures. They resemble some others which were called horses and are probably intended to represent that animal
	8	horse (kawa'lyū, Spanish caballo), with deer (ma'na)
	9	deer (ma'na)
	10	man (tca'tcī), with deer (ma'na), and bird (pī'tcū)
	11	deer (ma'na)
	12	deer (ma'na) with dogs (kū'tca)
	13	deer (ma'na) with bird (pī'tcū)
	14	horses (kawa'lyū, Spanish caballo), with bird (pī'tcū)
	15	zigzag (dē'tcū). The exact names of zigzags are governed by their relative size and their relations to those with which they are associated; viz.: de''pañmī dē'tcū = horizontal zigzag ūyūmī dē'tcū = vertical zigzag e' dē'tcū = big zigzag se'rañ dē'tcū, untranslatable form of zigzag lya'tena (the palm-wood steps of the house ladder). This name refers to the short lines which fill the spaces at the angles formed by the zigzag
	16	zigzag (dē'tcū). See fig. 15 above.
	17	zigzag (dē'tcū). See fig. 15 above. eye (kapū'ka). This term applies to the diamond-shape figures in the angles formed by the zigzag.
	18	big zigzag (e' dētcū)
	19	zigzag (dē'tcū). See fig. 15 above
	20	zigzag (dē'tcū). See fig. 15 above pitigua design (tyūm bī'lya) feast table (pa'kigī)
	21	pitigua design (etcūm bīū, from te'tcūnu bīlya) snake (pūnī)

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Plate	Figure	
CXXV	22	serafi dē'tcū (an untranslatable form of zigzag)
	23	zigzag (dē'tcū). See fig. 15 above eye (kapū'ka) and little eye (ka' kapūka) refer to the diamond-shape figures in the angles formed by the zigzag
	24, 25, 26	zigzag (dē'tcū). See fig. 15 above.
	27	big zigzag (e' dētcū) eye (kapū'ka and small eye (ka kapū'ka) refer to the diamond-shape figures in the angles of the zigzag
	28 29, 30	zigzag (dē'tcū). See fig. 15 above
	31	zigzag (dē'tcū). See fig. 15 above pūlya dē'we (pi'lya signifies design, and it appears that dē'we may possibly be related to dē'tcū, meaning zigzag. This design consists in part of a zigzag)
	32	big zigzag (e' dētcū) hū'rūlara, hū''la (untranslatable) eye (kapū'ka). This term applies to the diamond-shape portions of the design
	33	zigzag (dē'tcū). See fig. 15 above
	34	zigzag (dē'tcū). See fig. 15 above tongue of sting-ray (tyū'wī ni'ka)
	35	zigzag (dē'tcū). See fig. 15 above hū'rūlara, hu''la (untranslatable)
	36	bimbū'ka (piande, a small species of lizard) e pala'tcū (e signifies big; pala'tcū is untranslatable)
	37	zigzag (dē'tcū). See fig. 15 above
	38	pala'ra (untranslatable) pala'tcū (untranslatable) hū'rūlara, hū''la (untranslatable)
	39	No interpretation was given for this design, since it appears to be of modern origin. Such a modern design is usually called te'mbū pūlya, which signifies handkerchief design from the fact that they are derived largely from handkerchiefs of modern manufacture
	40	big zigzag (e' dētcū)
	41, 42, 43	zigzag (dē'tcū). See fig. 15 above

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Plate	Figure	
CXXV	44	palm-wood steps of the house ladder (lya'tena)
		belt (tcū'mbī). This term should be tcū'mbī pīlya, which signifies belt design and is applicable to any design which appears on a belt
CXXVI	1	balya'lyac (untranslatable)
		eggs of a species of lizard called bīmbū'ka (bī'mbū napīpū)
	2	hū'rūlara, hū''la (untranslatable)
		eggs of a species of lizard called bīmbū'ka
	3	(bī'mbū napīpū)
		pū'ka ka (this appears to be really ka' pūka which means small fruit)
		big zigzag (e' dētcū)
		balya'lyac (untranslatable)
		hū'rūlara, hū''la (untranslatable)
	4	hū'rūlara, hū''la (untranslatable)
		balya'lyac (untranslatable)
		pū'ka ka (apparently signifies small fruit)
	5	foot of a small species of lizard (bī'mbū nyapa)
		e hū''la (e signifies large; hū''la is untranslatable)
	6	egg of a small species of lizard (bī'mbū napīpū)
		hū'rūlara, hū''la (untranslatable)
	7	balya'lyac (untranslatable)
		tyū'ndyu tcī lara (untranslatable)
	8	balya'lyac (untranslatable)
		tyū'ndyū tcī lara (untranslatable)
		handkerchief design (tē'mbū pīlya)
	9	balya'lyac (untranslatable)
		tyū'ndyū tcī lara (untranslatable)
		hū''lara (untranslatable)
		handkerchief design (te'mbū pīlya)
	10	balya'lyac (untranslatable)
		belt design (tcū'mbī pīlya). (This term is applied to any design on a belt, regardless of the nature of the design)
		big zigzag (e' dētcū)

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PLATE	FIGURE	
CXXVI	1	palm-wood steps of a house ladder (lya'tena). (This term applies to the horizontal lines which form part of this design)
		tyū'ndyū tcī lara (untranslatable)
	11	balya'lyac (untranslatable)
		te'pū balyalya (untranslatable)
		pala'c lara (untranslatable)
	12	balya'lyac (untranslatable)
		tyū'ndyū tcī lara (untranslatable)
	13	balya'lyac (untranslatable)
		horizontal design (de" pañ bīlya)
		tyū'ndyū tcī lara (untranslatable)
	14	balya'lyac (untranslatable)
		handkerchief design (te'mbū pilya)
	15	balya'lyac (untranslatable)
	16	balya'lyac (untranslatable)
		belt (tcū'mbī). (This term should be tcū'mbī pilya, signifying belt design. It is equally applicable to any design which appears on a belt)
	17	balya'lyac (untranslatable)
		belt (tcū'mbī). (This term should be tcū'mbī pilya, signifying belt design. It is equally applicable to any design which appears on a belt)
	18	No interpretation obtained
	19	No interpretation obtained
	20	No interpretation obtained
	21	zigzag (dē'tcū). See pl. CXXV, fig. 15, above
		belt (tcū'mbī). (This term is applicable with equal propriety to all designs appearing on belts; its full form is tcū'mbī pilya)
	22	eggs of a species of small lizard called bimbū'ka (bī'mbū napipū)
		tyūlya'lya (untranslatable)
		hū'rūlara, hū"la (untranslatable)
		pū'te wūlūcla (pū'te signifies hamper-shape basket; wūlū'cla is untranslatable)
	23	balya'lyac (untranslatable)
		ladder (lya'pū)

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Plate	Figure	
CXXVI	24	No name obtained
	25	No name obtained
	26	No name obtained
	27	No name obtained
	28	belt (tcū'mbī). (This term applies to any design which appears on a belt; its full form is tcū'mbī pīlya)
		tyūlya'lya (untranslatable)
	29	mō'pītcīpapa, mōpī ke'nū tcīpapa. (The carved stick used as an implement with which to apply the red and yellow face paint)
		tyūlya'lya (untranslatable)
		balya'lyac (untranslatable)
		tyūm bī'lya (bī'lya signifies design, tyūm appears to come from te'tcūa, signifying pitigua). (The connection of the design and name here is not very clear)
	30	handkerchief design (te'mbū pīlya)
		tyūlya'lya (untranslatable)
		pala'lara (untranslatable)
	31	handkerchief design (te'mbū pīlya)
		tyūlya'lya (untranslatable)
	32	balya'lyac (untranslatable)
		tyūm bī'lya (bī'lya signifies design, and tyūm appears to be derived from te'tcūa, signifying pitigua)
	33	No signification was obtained for this elaborate design
	34	balya'lyac (untranslatable)
	35	No signification obtained
	36	No signification obtained
	37	No signification obtained
	38	handkerchief design (te'mbū pīlya)
		tyūlya'lya (untranslatable)
	39	No signification obtained
	40	handkerchief design (te'mbū pīlya)
		tyūlya'lya (untranslatable)
	41	zigzag (dē'tcū). See pl. CXXV, fig. 15, above
		te'pū balya'lya (untranslatable)
		balya'lyac (untranslatable)
		fruit (pū'ka)

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CLOTH DESIGNS: GEOMETRIC FIGURES

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CLOTH DESIGNS. GEOMETRIC FIGURES

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Plate	Figure	
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CXXVI	42	pala'cla (untranslatable)
		belt (tcū'mbū). (This term in full is tcū'mbū pilya, signifying belt design, and is applicable to all designs appearing on belts) 531 552
	43	balya'lyac (untranslatable)
		hū'lara (untranslatable term)
	44	handkerchief design (te'mbū pilya)
		tyūlya'lya (untranslatable)
	45	tyūlya'lya (untranslatable)
		tyū'ndyū tci lara (untranslatable)
	46	canoe design (kūm bi'lya)
		handkerchief design (te'mbū pilya)
	47	handkerchief design (te'mbū pilya)
		te'mbū balyalya (te'mbū signifies handkerchief; balya'lya is untranslatable)
	48	pala'tcū or palū'c lara (untranslatable)
	49	pala'tcū (untranslatable)
		caro (pū'ñge)
		cruciform (se'pinde)
	50	No signification obtained
	51	No signification obtained
CXXVII	1	big zigzag (e' dē'tcū)
		e pala'tcū (e signifies big; pala'tcū is untranslatable)
		boa constrictor (we'sū)
	2	e hū'rūlara (e signifies big; hū'rūlara is untranslatable)
		pitigua design (tyūm bi'lya) (tyūm comes from te'tcūa, meaning pitigua)
	3	ba'ndūlas (a certain basketry technic). (This particular basketry technic is a kind of openwork which produces small squares similar to those shown here. It is clearly a case of the adaptation of this technic to this textile) [285]
		hū'rūlara, hū'la (untranslatable)
	4	ba'ndūlas (a certain basketry technic). See fig. 3 above
		zigzag (dē'tcū). (This interpretation seems doubtful)
	5	hū'rūlara, hū'la, hū'rūla (untranslatable)

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PLATE	FIGURE	
CXXVII	5	eye (kapū'ka) kapūka ya dē'tcu (eye ya zigzag)
	6	hū'rūlara, hu''la (untranslatable)
	7	e hū''la, hū''la (untranslatable)
	8	hū'rūlara, hū''la, pala'lac (untranslatable)
	9	ba'ndilas (a certain basketry technic). See fig. 3 above
	10	hū'rūlara, hū''la, e hū''la, ho' lara (untranslatable)
	11	zigzag (dē'tcū) hū'rūlara, hū''la (untranslatable)
	12	ba'ndilas (a certain basketry technic). See fig. 3 above crab design (ne' pīlya) nim bī'lya (untranslatable) zigzag (dē'tcū). (The connection seems doubtful)
	13	ba'ndilas (a certain basketry technic). See fig. 3 above
	14	pala'la, pala'lara, pala'tcū (untranslatable)
	15	hū'rūlara, hū''la (untranslatable) turtle (pītcī'lī)
	16	No interpretation obtained
	17	hū'rūlara, hū''la (untranslatable)
	18	No interpretation obtained
	19	pala'tcū, tapū'lyū (untranslatable)
	20	cross (karū'sa, from the Spanish cruz) pala'tcu (untranslatable) top (tōmbe'ta, from the Spanish trompo)
	21	pala'cla (untranslatable) belt (tcū'mbī). (This term in full is tcū'mbī pīlya, belt design, and is equally applicable to all designs occurring on belts)
	22	big zigzag (ē' dētcu) i'clabō ñ (iron used with flint in striking fire)
	23	eye (kapū'ka)
	24	lya'tena (the palm-wood steps of a ladder) ne' pīlya tyūndyū tcī lara (ne' pīlya signifies crab design; the remainder of the term is untranslatable)

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PLATE	FIGURE	
CXXVII	24	tyū'ndyū tcī lara (untranslatable) ladder (lya'pī) crab design (ne' pīlya)
	25	lya'tena (the palm-wood steps of a ladder) ne' pīlya tyūndyū tcī lara (ne' pīlya signifies crab design; the remainder of the term is untranslatable) ladder (lya'pī) crab design (ne' pīlya) tcū'mbī delam ba''ta (tcū'mbī signifies belt; the remainder of the term is untranslatable)
	26	lya'tena (the palm-wood steps of a ladder)
	27	crab design (ne' pīlya) nim bī'lya (untranslatable)
	28	ka'pū tcī lara (to turn the eyes in an upward direction) lya'tena (the palm-wood steps of a ladder)
	29	delam ba''ta (untranslatable) lya'tena (the palm-wood steps of a ladder)
	30	crab design (ne' pīlya)
	31	zigzag (dē'tcū). (The connection seems doubtful) The stick used to apply face-paint; it is called mō'pītcipapa, mōpī ke'nū tcipapa, and mū'pī kenū tcipapa, all variants of the same term
	32	crab design (ne' pīlya) nim bī'lya (untranslatable) crab eyes (ne' kapūka)
	33	zigzag (dē'tcū)
	34	crab design (ne' pīlya)
	35	No interpretation obtained
	36	No interpretation obtained for this design as a whole. Horizontal bars of this kind are called lya'tena, meaning the palm-wood steps of the house ladder, and the small rectangles are called ne' pīlya, signifying crab design, or nim bī'lya, in which nim is a term of unknown signification
	37	crab design (ne' pīlya)

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PLATE	FIGURE	
CXXVII	37	crab design white cotton (ne' pīlya fīhañ ūtcūa) nim bī'lya (untranslatable) crab design technic (ne' pīlya decīma) eye (kapū'ka)
	38	eye (kapū'ka) crab eye (ne' kapūka, nē'lū kapūka) dū'lalara kapūka, kapūka dala'la ke'tū (kapū'ka in each of these terms signifies eye. The remaining portions of these terms are untranslatable) balya'lyac (untranslatable) belt design (tcū'mbī pīlya). (This term belt applies equally to all designs occurring on belts)
	39	No interpretation obtained. Horizontal bars of this kind are usually called lya'tena, which signifies the palm-wood steps of a house ladder. As a matter of fact the design from which this figure was taken was a very small one and it is doubtful if this name would apply
	40	zigzag (dē'tcū) i'clabō'ñ (iron used with flint in striking fire)
	41	i'clabō'ñ (iron used with flint in striking fire)
	42	i'clabō'ñ (iron used with flint in striking fire) zigzag (dē'tcū) The rectangular closed figures are called kū'tca petī; kū'tca signifies dog, but pe'tī is untranslatable. The crossed lines between these rectangular figures are called pala'la, a term of unknown signification
	43	i'clabō'ñ 'the iron used with flint in striking fire)

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bait, karna'da. Also said to be the name of a certain crustacean, called in Spanish camaron brava. CXXIV, 55.

balya'lyae (untranslatable). CXXIII, 11; CXXVI, 1, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 23, 29, 32, 34, 35, 41, 43; CXXVII, 38.

basket. See pū'te.

belt or girdle, tcū'mbī, a term that may be used as part of the name of any design on a belt. CXXV, 44; CXXVI, 16, 17, 21, 28, 42; CXXVII, 21, 38.

bird, pī'tcū. CXXIV, 20, 23, 24, 29, 31, 43; CXXV, 6, 10, 13, 14.

la'pī'tcū. A small black and yellow bird, a good singer, much kept as a pet by the Cayapa. Spanish, pichichu. CXXIV, 44.

tū'mbītcīlīlī. A small black bird with red beak. CXXIV, 39.

frigate bird, nyambīwa'tū. CXXIV, 34.

boa constrictor, we'sū. CXXVII, 1.

burro, bū'rū. CXXIV, 11.

buzzard, kū'ndūrūrū, petyū'tyū; Spanish, gallinaso. CXXIV 36, 44.

canoe design, kūm bī'lya: kūm, from kū'lo, canoe. CXXVI, 46.

centipede's hand, se'pinde tyapa; hand (not leg) = tyapa'pa. CXXIV, 57; CXXVI, 49.

chicken, walya'pa. CXXIV, 26, 37.

color. Frequently an informant gave as the name of a particular design the name of the color of the material from which it was made. Such names, of course, have no significance in the interpretation of designs, but are of interest in that often they were the only ones obtainable. The names particularly used in this connection were:

te'nda, green thread, from a small shrub called te'nda tcī, the leaves of which provide the pigment used in coloring this thread. [386]

ka'kō, lavender thread, this color being obtained from a small periwinkle-like mollusk.

The names for other colors were almost never used in this manner.

cow, waga'ra, from Spanish vaca. CXXIII, 35; CXXIV, 10, 15.

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crab, ne'lū, the small red land-crab. CXXIII, 38; CXXIV, 55, 56, 58.

tepui ne'lū, a certain species from the coast region. CXXIV, 55.

crab eye, ne'kapūka, ne'lū kapūka. This refers to the eye of the small red land-crab called ne'lū. CXXVIII, 32, 38.

crab design, ne' pīlya: ne from ne'lū, crab; pī'lya, design. CXXVII, 12, 24, 25, 27, 30, 32, 34, 37.

ne' pīlya tyūndyū tci lara: ne' pīlya, crab design, the remainder is untranslatable. CXXVII, 24, 25.

crab design technic (literally), ne' pīlya declīna. CXXVII, 37.

crab design white cotton (literally), ne' pīlya ffiañ ūtcūa. CXXVII, 37.

cross, karū'sa, from Spanish cruz. CXXVII, 20.

deer, ma'na. CXXIII, 40, 41; CXXV, 8, 9, 10, 12, 13.

delam ba''ta (untranslatable). CXXVII, 29.

design. In many cases informants simply gave the term pī'lya, or bī'lya, which signifies design or pattern. It would appear that it was employed in cases where the design was of unknown signification, or where it was newly introduced. Such a general term is, of course, applicable to all patterns.

belt design, tcū'mbi pīlya. This term applies to any pattern on a belt or girdle, regardless of its form. CXXVI, 10; CXXVII, 38. See belt.

horizontal design, de''pañ bīlya. CXXVI, 13.

dog, kū'tca. CXXIII, 45; CXXIV, 7, 19; CXXV, 12.

kū'tca petī: pe'tī is untranslatable. The rectangular figures of this pattern are referred to by this name. CXXVII, 42.

dove, Spanish, paloma. CXXIV, 29, 31.

pactū'kū. A reddish species as large as a chicken. CXXIV, 25.

wa'pū'pū. A small reddish species. CXXIV, 24, 42.

duck, Spanish, pato. CXXIV, 38.

dū'lalara kapūka (dū'lalara is untranslatable; kapū'ka, eye). CXXVII, 38.

ear, pū'ñge. CXXVI, 49.

egret, white, ka''tū; Spanish, garza. CXXIV, 45, 29.

e hū''la (e, bird; hū''la, untranslatable). CXXVI, 5; CXXVII, 7, 10.

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e hū'rūlara (e, big; the remainder is untranslatable). CXXVII, 2.
e pala'tcū (e, big; the remainder is untranslatable). CXXV, 36; CXXVII, 1.
eye, kapū'ka. CXXV, 17, 23, 27, 32; CXXVII, 5, 23, 37, 38.
kapūka dalalake''tū (kapū'ka, eye; the remainder is untranslatable). CXXVII, 38.
ka' kapūka, "little eye." The small diamond-shape designs on mantas, etc. CXXV, 23, 27.
ka'pūka ya dētcū (kapū'ka, eye; the remainder is untranslatable). CXXVII, 5.
ka'pū tcī lara, to turn the eyes in an upward direction, i.e., to look decidedly upward. CXXVII, 28.
feast table, pa'kīgi, a contraction of piñba kīkI. CXXV, 20.
fruit, all classes, pū'ka. CXXVI, 41.
girdle. See belt.
goat, tcī'bū; Spanish, chivo. CXXIII, 26, 27; CXXIV, 9, 36.
guinea pig, a''tse. CXXIV, 1, 2, 3, 4, 5, 6, 8, 10, 11.
handkerchief, te'mbū balya'lya: te'mbū, a contraction of tembū'pū, handkerchief; balya'lya, untranslatable. CXXIV, 21; CXXVI, 47.
handkerchief design, te'mbū pūlya: tembū'pū, handkerchief. CXXIV, 21; CXXV, 39; CXXVI, 8, 9, 14, 30, 31, 38, 40, 44, 46, 47.
hawk, hūya'lyū; Spanish, gabilan. CXXIII, 41.
hō'lara (untranslatable). CXXIII, 28, 43; CXXVII, 10.
horse, kawa'lyū; Spanish, caballo. CXXIII, 24, 25, 26, 27, 30, 31, 33, 34, 36, 37; CXXIV, 7, 14, 21, 28, 36; CXXV, 8, 14.
hū''la (untranslatable). CXXIII, 17, 21; CXXV, 32, 35, 38; CXXVI, 2, 3, 4, 6, 22; CXXVII, 3, 5, 6, 7, 8, 10, 11, 15, 17.
hū'lara (untranslatable). CXXVI, 9.
human being, tca'tcī. CXXIII, 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16, 19, 24, 28, 30, 43; CXXIV, 5, 6, 17; CXXV, 1, 2, 10.
hū'rūla (untranslatable). CXXVII, 5.
hū'rūlara (untranslatable). CXXIII, 17; CXXV, 32, 35, 38; CXXVI, 2, 3, 4, 6, 22; CXXVII, 3, 5, 6, 8, 10, 11, 15, 17.
kūē'bū (untranslatable). CXXIV, 22.
kū'tca pe'tI (kū'tca, dog; pe'tī, untranslatable). The rectangular figures of this pattern are thus referred to. CXXVII, 42
ladder, lya'pī; Spanish, escalera. CXXVI, 23; CXXVII, 24, 25. lya'tena, i.e. palm-wood steps of a house-ladder, CXXV, 15, 44; CXXVI, 10; CXXVII, 24, 25, 26, 28, 29.

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lizard. CXXIV, 13.

bĭmbū'ka, a large species; Spanish, piande. CXXIV, 58; CXXV, 36.

bĭ'mbū napīpū, i.e., egg of a lizard called bĭmbū'ka. CXXVI, 1, 3, 6, 22.

bĭ'mbū nyapa, foot of a lizard called bĭmbū'ka. CXXVI, 5.

monkey. cu'rĭ, a small species; Spanish, machin and mico. CXXIII, 22, 23, 29, 31, 39; CXXIV, 16; CXXV, 3, 4, 5, 6.

wo'cū, wa'cū, a species larger than the machin but smaller than the large black monkey called mongon; Spanish, mono. CXXIII, 22, 38, 45.

ne'lū kapūka. See crab eye.

nim bi'lya (untranslatable). This design is one of those most frequently employed. CXXVII, 12, 27, 32, 37.

pala'cla (untranslatable). CXXVI, 42; CXXVII, 21.

pala'c lara (untranslatable). CXXVI, 11.

pala'la (untranslatable). CXXIII, 9, 10; CXXVII, 14, 42.

pala'lac (untranslatable). CXXVII, 8.

pala'lara (untranslatable). CXXVI, 30; CXXVII, 14.

pala'ra (untranslatable). CXXV, 38.

pala'tcū (untranslatable; the only definition obtainable was the Spanish term garavata). CXXIII, 21; CXXV, 38; CXXVI, 48, 49; CXXVII, 14, 19, 20.

palû'c lara (untranslatable). CXXVI, 48.

pelican, nana''ka; Spanish alcatraz. CXXIII, 38, 42; CXXV, 21, 25, 26, 27, 29, 30, 33, 35, 36, 37, 38, 40, 41.

petyū'tyū. See buzzard.

pilya dĕ'we: pĭ'lya, design; dĕ'we, possibly related to de'tcū, zigzag. CXXV, 31.

pitigua, etcūm bĭ'û: probably related to te'tcūmb ĭlya, from te'tcūa, pitigua, and bĭ'lya, design. CXXV, 21.

pū'ka ka (untranslatable). CXXVI, 3, 4.

pū'te wilû'cla: pū'te, hamper-shape basket; wĭlû'cla, untranslatable. CXXVI, 22.

ray, tongue of sting-ray. tyū'wĭ nĭ''ka. CXXV, 34.

scorpion, alaga'ra; Spanish, alacrán. CXXIV, 49, 50.

se'rañ dĕ'tcū (untranslatable). CXXV, 22.

sheep, bŏrrĭ'gō, usually called bŏrrĭ'gō by the Cayapa, but called also ōĭ'ca from Spanish oveja. CXXIV, 1, 4, 5, 6, 8, 16.

shake, pĭnĭ. CXXV, 21.

spider, mū'tele; Spanish, araña. CXXIII, 12; CXXIV, 46, 47, 49.

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steel, ĭ'clabō'ĕ, i.e., iron used with flint in striking fire. CXXVII, 22, 40, 41, 42, 43.

stick, with which achote face-paint is applied, mō'pĭtcĭpapa, mōpi ke'nû tcĭpapa, mû'pi kenû tcĭpapa. CXXVI, 29; CXXVII, 31.

tapû'lyû (untranslatable) CXXVII, 19.

tcû'mbi delam ba"ta (tcû'mbi, belt or girdle; delam ba"ta, untranslatable). CXXVII, 25.

technic, ba'ndilas, a certain basketry technic. CXXVII, 3, 4, 9, 12, 13.

te'pu balya'lya (untranslatable). CXXVI, 11, 41.

toad, sa'pû, from Spanish sapo. CXXIII, 4, 17, 18, 19, 20, 59.

top, tombē'ta, from Spanish trompo. CXXVII, 20.

turkey, domestic, kaste'lya walyapa, literally Spanish or Castilian chicken. CXXIV, 22.

turtle, pĭtcĭ'lĭ; Spanish, tortuga. CXXIV, 53, 54, 59; CXXVII, 15.

tyûlya'lya (untranslatable). CXXVI, 22, 28, 29, 30, 31, 38, 40, 44, 45.

tyûm bi'lya (tyûm, probably from te'tcûa, pitigua; bi'lya, design). CXXV, 20; CXXVI, 29, 32; CXXVII, 2.

tyû'ndyû tcĭ lara (untranslatable). CXXIV, 17; CXXVI, 7, 8, 9, 10, 12, 13, 45; CXXVII, 24.

zigzag (generic), dē'tcû. This term is usually preceded by an adjectival term which indicates the particular kind of zigzag; viz., ē' dētcû, se'rañ dētcû, ûyû'mĭ dētcû, de"pañmĭ dētcû. CXXV, 15, 16, 17, 19, 20, 23, 25, 26, 28, 29, 30, 31, 33, 34, 35, 37, 41, 42, 43; CXXVI, 21, 41; CXXVII, 4, 11, 12, 31, 33, 40, 42.

dē'tcû serañ tsûa; (dē'tcû, zigzag; no definite translation for the remainder of the term could be obtained). CXXV, 29.

ē' dētcû; literally, big zigzag; given also as crossed zigzag, though this meaning is doubtful. CXXV, 18, 27, 32, 40; CXXVI, 3, 10; CXXVII, 1, 22.

de"pamĭ dētcû, de"pañmĭ dētcû; horizontal zigzag. CXXV, 34.

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silk or rayon shawl which can cover her head, face and breast when she is dancing. Her skirt, worn over a black cotton underskirt /t'ĭn'ĭa/, falls just below the knee and is a wrap-around in a solid color. It is embroidered at the hem in the manner of the man's shirt fashions. A belt secures the underskirt, and the overskirt is tucked in at the waist. The women spend a good deal of time adjusting the overskirt.

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For dancing or for receiving the blows of the cat-o-nine-tails /šatĕ̆ŭa/ as punishment, the women puts on over her usual skirts a woven wrap-around skirt made of heavy cotton and decorated with both geometric and realistic designs. Many colors are used, but blue, white, and red predominate. Since the present generation of women is almost completely ignorant of the weaver's art, the skirts are seldom their own handiwork. [284].

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Manufactures. Woodworking: It is immediately apparent that canoes and their handling are extremely important to all the inhabitants of the area. Young boys often begin their lessons in canoemanship by playing on the drifting logs that come down stream when the river is in flood. They tumble and splash and learn